

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A device that reduces the volatility of radioactive waste comprising:

- (a) a receptacle having an open end said open end having a means for affixing a lid securely to said receptacle,
- (b) a composition comprising an absorbent matrix, ~~comprising~~ a humectant, a pH-stabilizing agent and an adsorbent material said receptacle able to receive said composition ~~matrix~~ and
- (c) a lid affixed to said open end of said receptacle.

Claim 2 (previously amended): A device according to claim 1 further comprising radioactive waste wherein said radioactive waste comprises a radioactive isotope selected from the group consisting of ^{125}I and ^{131}I .

Claim 3 (previously amended): A device according to claim 1 further comprising radioactive waste wherein said radioactive waste comprises a radioactive isotope selected from the group consisting of ^{36}Cl , ^{33}P , ^{32}P , ^{35}S , ^{18}F , ^{15}O , ^{14}C , ^{13}N , ^{11}C , and ^3H .

Claim 4 (cancelled).

Claim 5 (original): A device according to claim 1 wherein said receptacle is constructed of a plastic.

Claim 6 (original): A device according to claim 1 wherein said absorbent matrix is constructed of one or more natural materials, one or more synthetic materials or a combination of one or more natural and one or more synthetic materials.

Claim 7 (previously amended): A device according to claim 6 wherein said natural material is selected from the group consisting of cotton, wool, paper, vermiculite, starch and diatomaceous earth.

Claim 8 (previously amended): A device according to claim 6 wherein said synthetic material is selected from the group consisting of fiberglass, cellulose derivatives, dextrans, polyacrylamide and hydrophilic polymers.

Claim 9 (original): A device according to claim 1 wherein said absorbent matrix is constructed of unidirectional cotton fibers.

Claim 10 (previously amended): A device according to claim 1 wherein said pH-stabilizing agent is prepared from one or more of the following compounds selected from the group consisting of TRIS, dibasic phosphate salts, tribasic phosphate salts, sodium borate, the sodium salt of glycine, potassium acetate and potassium hydroxide.

Claim 11 (previously amended): A device according to claim 1 wherein said pH-stabilizing agent is dibasic phosphate salts.

Claim 12 (original): A device according to claim 1 wherein said adsorbent material is starch or polymeric resins.

Claim 13 (original): A device according to claim 1 wherein said adsorbent material is activated charcoal.

Claim 14 (original): A composition comprising an absorbent matrix, a humectant, a pH-stabilizing agent and adsorbent material.

Claim 15 (original): A composition according to claim 14 wherein the absorbent matrix is constructed of unidirectional cotton fibers.

Claim 16 (original): A composition according to claim 14 wherein the humectant is glycerol.

Claim 17 (previously amended): A composition according to claim 14 wherein the pH-stabilizing agent is composed of dibasic phosphate salts.

Claim 18 (original): A composition according to claim 14 wherein the adsorbent material is activated charcoal.

Claim 19 (previously amended): A composition according to claim 14 wherein the absorbent matrix contains about 3 to about 20 parts by weight of glycerol, about 1 to about 10 parts by weight of a composition of disodium phosphate salts and about 0.5 to about 10 parts by weight of activate charcoal.

Claim 20 (withdrawn).

Claim 21 (currently amended): A kit for reducing the volatility of radioactive waste comprising:

- (a) at least one receptacle having an open end said open end having a means for affixing a at least one lid securely to said at least one receptacle,
- (b) at least one composition comprising an absorbent matrix, ~~comprising~~ a humectant, a pH-stabilization agent and an adsorbent material said at least one receptacle able to receive said composition ~~absorbent matrix~~ and
- (c) at least one lid affixed to said at least one receptacle.

Claim 22 (new): A composition of claim 14, wherein the pH-stabilization agent is present in sufficient quantity to prevent the formation of gas.

Claim 23 (new): A composition of claim 14, wherein the components of the composition, excepting the humectant, are substantially dry.